

2/11/2015

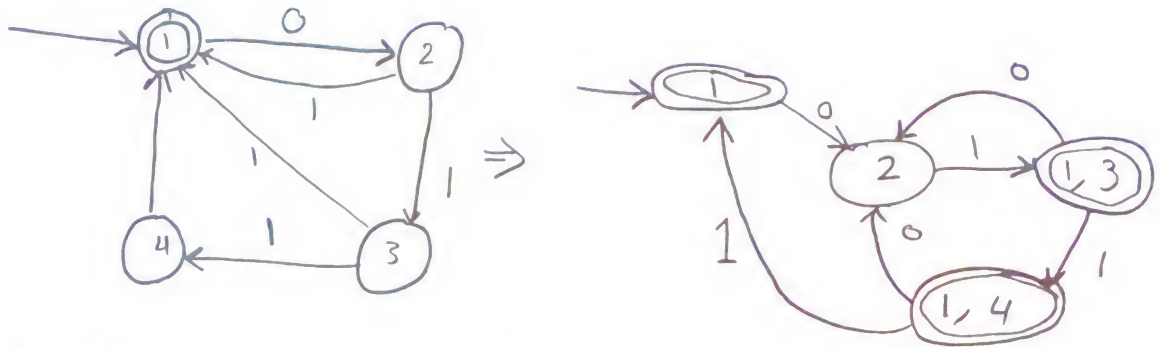
الأسبوع

م. ج. ب

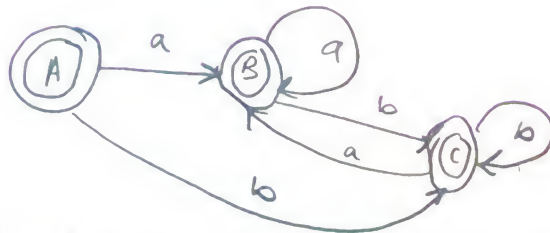
سنة 14

Sheet 3

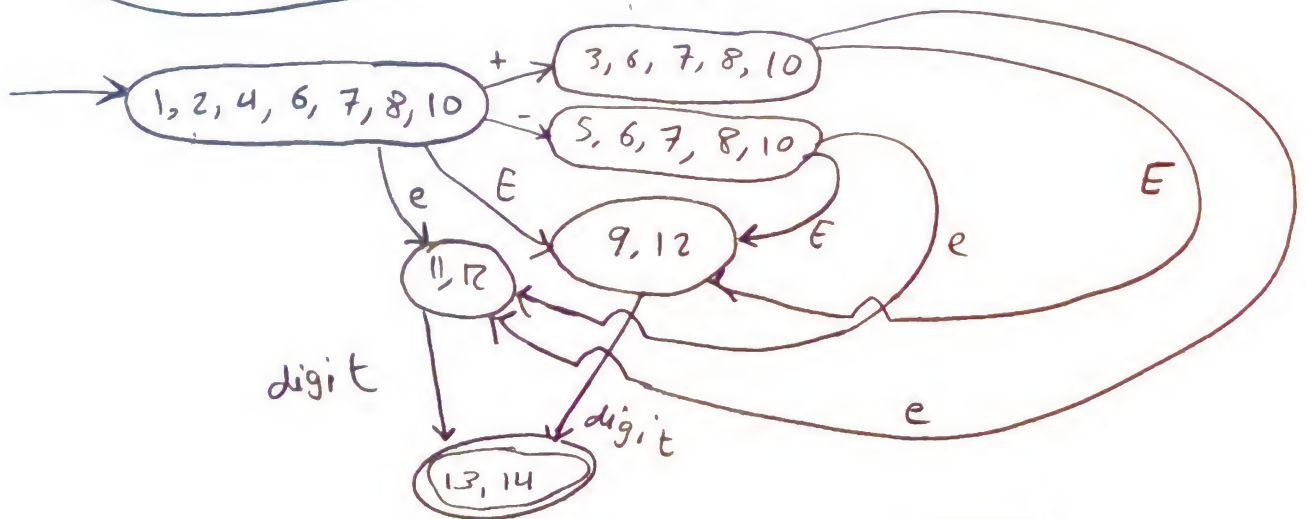
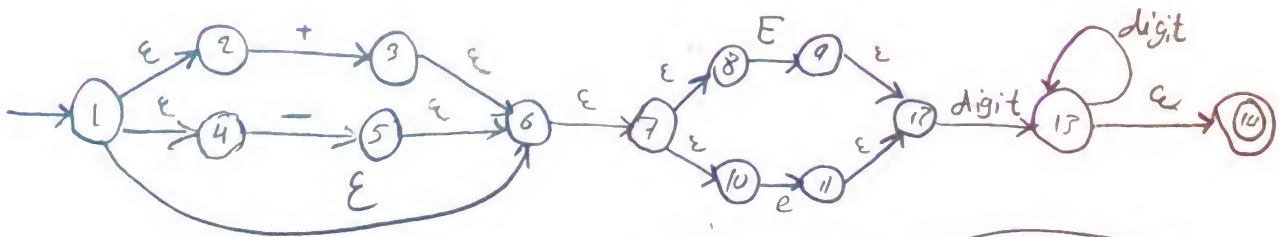
4) 01, 011, 0111



5) $(a+b)^*$, $(a^*+b^*)^*$, $((\epsilon+a)b^*)^*$



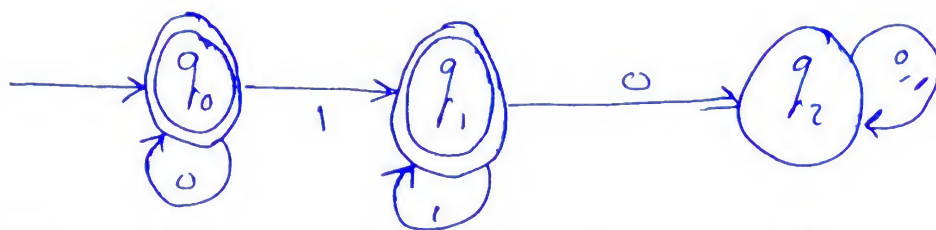
6) Exponent = $(+ + - + \epsilon)^* . (\epsilon + e) . (\text{digit})^+$



error

dead state → هذا مدخلات غير موصولة في رسم الحالة

7



The language of All strings from the given alphabet $(0,1)$ that contains zero or more number of 0's followed by zero or more number of 1's

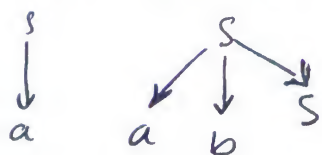
Regex = $0^* 1^*$

→ Sheet 4 ←

- 1 Terminals, Non-Terminals - Production, Starting Symbol
- 2 Productions are the rules for replacing a single non-terminal with a string of terminals and non terminals
- 3 A string that can be obtained by more than one tree result in Ambiguity
- 4 Scanning matches input to regular expressions to produce terminals, Parsing matches terminals to grammars to create parse tree.

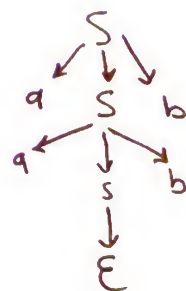
5

A) $S \rightarrow abs \mid a$



$(ab)^* a$

B) $S \rightarrow aSb \mid \epsilon$

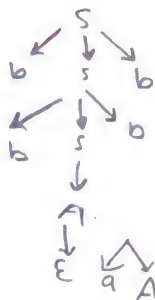


$a^* b^*$

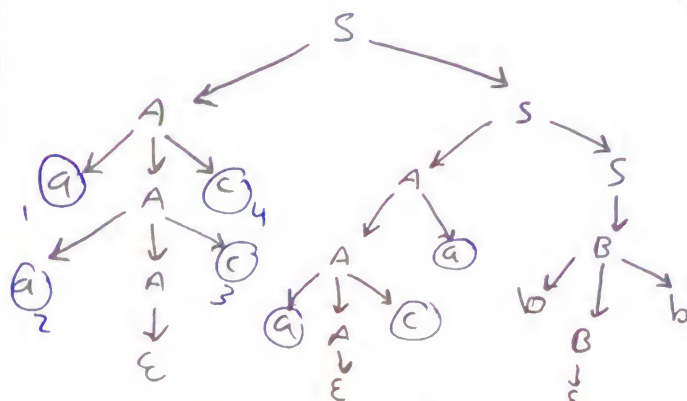
2

C) $S \rightarrow b S b \mid A$
 $A \rightarrow a A \mid \epsilon$

$b^* a^* b^*$



D) $S \rightarrow A S \mid B$
 $A \rightarrow a A c \mid A a \mid \epsilon$
 $B \rightarrow b B b \mid \epsilon$

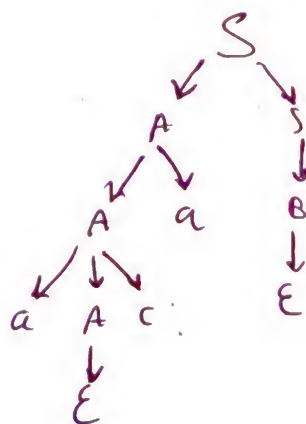
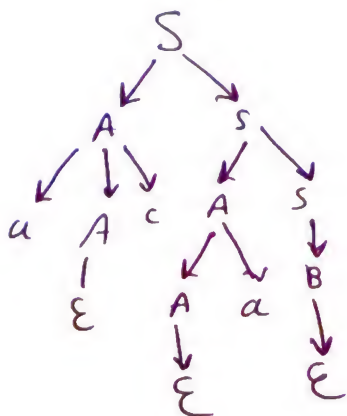


strings of A 's and C 's with same or fewer C 's than A 's, and no prefix has more C 's than A 's followed by even number of B 's

e) $S \rightarrow S$ and $S \mid S$ or $S \mid (S) \mid \text{true} \mid \text{false}$
 any boolean expression

6] left recursive $S \xrightarrow{\text{left}} S A$
 d, e are left recursive

7] d) is ambiguous Stringا غير فني ال Parsing tree منى , منى do



③ is ambiguous

True and True or True

